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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/060,121	01/31/2002	Robert P. Benjey	01-ASD-224 (GT)	5887

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EXAMINER	
RIVELL, JOHN A	
ART UNIT	**PAPER NUMBER**
3753	

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/060,121	BENJEY, ROBERT P.	
	Examiner	Art Unit	
	John Rivell	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/4/05 (amendment and req. for recon.)*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's arguments filed March 4, 2005 have been fully considered but they are not persuasive.

Claims 1-12 remain pending.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (U.S. 5,606,954) in view of Aubel et al. further in view of Hashimoto et al.

The patent to Yamazaki et al ('954), in figure 9, discloses "a system for controlling flow of liquid fuel and vapor during refueling of a motor vehicle fuel tank (21) with a filler tube (22') for receiving a fuel dispensing nozzle (3) comprising: (a) a vent valve (26) disposed in the tank (21) and having an inlet communicating with the vapor dome in the tank (21) and an outlet (connected to conduit 23a) communicating with a remote vapor storage device (canister C);... (c) a recirculation conduit (27_3) having one end connected to admit fuel vapor to the filler tube (at 22a')... and having an end opposite said one end connected to receive fuel vapor from the outlet of said vent valve (at conduit 23a)" as recited in claim 1.

Thus the patent to Yamazaki et al ('954) discloses all the claimed features with the exception of having "a seal disposed in the filler tube and operable for sealing about the nozzle upon insertion therein" and "a neck portion in the filler tube downstream of the location of said recirculation conduit connection location, wherein said neck has the inner periphery thereof sized to receive the nozzle in closely fitting arrangement and to form an effective dynamic seal about liquid discharging from the nozzle"

Firstly, the patent to Aubel et al. discloses that it is known in the art to employ a seal element 24 in fuel filler neck 24, upstream of a vapor dome vent connection at valve 28 for the purpose of preventing fuel vapor leakage to atmosphere about the filling nozzle while permitting recirculation of fuel vapor from the tank dome area back to the filler neck during refueling.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Yamazaki et al ('954) a seal element about the filling nozzle at a location upstream of the dome vapor vent conduit 27_3 in Yamazaki et al ('954) for the purpose of preventing fuel vapor leakage to atmosphere about the filling nozzle while permitting recirculation of fuel vapor from the tank dome area back to the filler neck during refueling as recognized by Aubel et al.

Secondly, the patent to Hashimoto et al. in figure 4, discloses that it is known in the art to employ "a neck portion in the filler tube (3) downstream of the location of said recirculation conduit (113 or 18) connection location (to the filer neck), wherein said neck (appears to have, as shown in figure 4) the inner periphery thereof sized to receive the nozzle (N) in closely fitting arrangement and to form an effective dynamic seal about liquid discharging from the nozzle" for the purpose of effectively creating a fuel "jetting" action causing a negative pressure in the region 21 capable of effectively recirculating fuel vapor from either of the vapor vent conduits 13 or 18 back into the filler neck during refueling.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Yamazaki et al ('954) a neck portion in the filler tube 22' downstream of the location of said recirculation conduit 27_3 connection location to the filer neck, wherein said neck has the inner periphery thereof sized to receive the nozzle 3 in closely fitting arrangement and to form an effective dynamic seal

about liquid discharging from the nozzle for the purpose of effectively creating a fuel "jetting" action causing a negative pressure in the region of the filler neck at the vapor vent connection location 21 effectively recirculating fuel vapor from the vapor vent conduit 27_3 back into the filler neck at 22a" during refueling as recognized by Hashimoto et al.

Regarding claim 2, in Yamazaki et al ('954) "said recirculation conduit (27_3) includes a one-way valve" at 62 as recited.

Regarding claim 3, in Yamazaki et al ('954) "said vent valve (26) outlet is connected to a hose (at 23a) connected to said storage device (canister C); and, said recirculation conduit (27_3) has an end thereof connected to said hose" as recited.

Regarding claim 4, in Yamazaki et al ('954) "said recirculation conduit (27_3) has one end connected through the wall of the tank and an end opposite said one end connected to said filler tube at said location" as shown in figure 6 for example.

Regarding claim 5, in Yamazaki et al ('954) "said vent valve (26) is float (25) operated" as recited.

Regarding claim 6, in view of the relative dimension apparent in figure 4 of Hashimoto et al. it appears that "said neck portion (at fuel filler neck 3)1 has its inner diameter sized about 1 .2 times the nozzle (N) diameter" as recited.

Regarding claims 7-10, in making and/or using the device of the combination above, one of ordinary skill necessarily performs the recited method steps including "(a) disposing a fuel vapor vent valve (26.of Yamazaki et al ('954))... (b) disposing a seal (as at seal 24 in Aubel et al.) in the filler tube for sealing about the dispensing nozzle upon insertion in the filler tube; (c) recirculating fuel vapor to the filler tube (as in Yamazaki et al ('954)) (d) sizing a neck portion" as taught by Hashimoto et al.

Regarding apparatus claims 11 and 12 the comments above concerning the combination of Yamazaki et al ('954), Aubel et al. and Hashimoto et al. apply here as well.

Regarding applicants remarks concerning the above, the argument that:

> "...in all three of the references relied upon by the Examiner, namely, Yamazaki et al, Hashimoto et al and Aubel et al, a recirculation vapor flow from the tank to the upper end of the filler tube is not controlled by the valve but is an open passage."

is agreed with in view of the teachings in Hashimoto et al at vapor vent tube 18 in which fuel vapor does not flow through a vapor vent valve (but not with respect to vent tube 13 in which fuel vapor does flow through vapor vent valve 11) and the teaching in Aubel et al, at vapor vent tube 22 in which the fuel vapor does not flow through the vapor vent valve 12. The patent to Yamazaki et al ('954) at figure 9 however clearly discloses that the fuel vapor vent tube 27_3 leading to the upper end of the filler neck, at numeral 22a', conducts all fuel vapor flow from the vapor vent valve outlet conduit 23a which is connected to the outlet of the vapor vent valve 26. Thus in contrast to applicants arguments, the embodiment disclosed in figure 9 of Hashimoto et al. discloses "a recirculation conduit (27_3) having one end connected to admit fuel vapor to the filler tube (at 22a')... and having an end opposite said one end connected to receive fuel vapor from the outlet of said vent valve (at conduit 23a)" as recited in paragraph (c) of instant claim 1. See also, the previous office action of December 28, 2004, page 2, wherein the Examiner specifically noted "figure 9" and tube "27_3" for discussion.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John Rivell
Primary Examiner
Art Unit 3753

j.r.